



Volume 8 Issue 10 - October 2019

## Director's Message



"Just the facts" was a catchphrase popularized by Sergeant Joe Friday in the television series, *Dragnet*. With this simple request, Sgt. Friday sought to focus on facts rather than speculation when conducting an investigation. Armed with facts, he was then able to conduct his investigation and reach an accurate conclusion by the end of each program.

While thermography is often thought of as a tool for predictive maintenance and condition assessment, in a larger sense it is an investigative tool. Thermal imaging provides evidence of thermal patterns across the surface of imaged objects. Accurately determining the cause of the observed thermal patterns often requires a little more work. Examples include visual inspections, ammeter readings, or invasive moisture meter readings to correlate thermal data.

At times, confirming tests such as those listed above are unavailable during an infrared inspection. In such cases, thermographers should accurately document their findings/observations and not offer conclusions until all facts are known.

## Training - A Wise Use of Year End Budget Money

Staying within budget is a constant challenge for maintenance managers. For many, it seems that there is never enough money in the budget. On occasion, however, it is possible to experience a surplus in one's budget when nearing year end.



When faced with a budget surplus, it is imperative to fully utilize allocated financial resources. Failure to do so can cause a reduction in future budgeting if management perceives that your department is overfunded. When searching for wise choices for year-end spending, training is always a good option.

Thermographic training is a sound investment for initiating a PdM program or expanding an existing one. In addition to open enrollment and on-site training courses, Infraspection Institute offers the most comprehensive inventory of web-based, distance learning courses for thermography. All courses are taught by highly experienced thermographers who are skilled at sharing their unique perspectives with students.

[More Information](#)

## How to Calculate Transmittance



Windows are semi-transparent materials placed between an object and an infrared instrument to separate conditioned from unconditioned spaces. When measuring temperatures through a window, it is imperative to know and enter the Transmittance value of the window into your radiometer's computer to help ensure temperature measurement accuracy.

## Upcoming Courses

### [Level I Certified Infrared Thermographer®](#)

- Oct 7 - 11 West Windsor
- Oct 7 - 11 Melbourne
- Oct 14 - 18 Kuala Lumpur
- Oct 14 - 17 Henderson
- Oct 28 - Nov 1 Auburn
- Oct 28 - Nov 1 Reno
- Dec 2 - 6 Trinidad
- Dec 2 - 5 Henderson
- Dec 9 - 13 West Windsor
- Dec 16 - 20 Kuala Lumpur

### [Level II Certified Infrared Thermographer®](#)

- Nov 11 - 15 Melbourne
- Nov 18 - 22 Kuala Lumpur
- Dec 9 - 13 Auburn
- Dec 9 - 13 Trinidad

### [Level III Certified Infrared Thermographer®](#)

- Dec 2 - 4 Melbourne

### [Full 2019 - 2020 Schedule](#)

## Upcoming Conferences

Infraspection Institute invite you to see us at the following upcoming conferences. Be sure to stop by and say Hello!

### [Thermal Imaging Conference](#)

October 3 - 6, 2019  
Irvine, CA

### [SMRP Conference](#)

October 7 - 10, 2019  
Louisville, KY

### [IR/INFO Conference](#)

January 19 - 22, 2020  
San Antonio, TX

Because no object is 100% transmissive, infrared windows will always have Transmittance values of less than 1.0. Following the procedure listed below, it is possible to calculate the T value of any window.

Equipment Required:

- Calibrated imaging radiometer with a computer that allows user to input Reflected Temperature and Emissance values.
- Blackbody simulator with  $E \geq 0.95$  heated close to temperature of target to be measured.
- Window that is semitransparent in the waveband of the imaging radiometer.

Method:

1. Place imaging radiometer at desired distance from blackbody simulator.
2. Aim and focus imager on blackbody simulator. Place crosshair on center of blackbody simulator.
3. Set imager's E control to 1.0
4. Measure and compensate for Reflected Temperature.
5. Measure and note apparent temperature of blackbody simulator.
6. Place window directly in front of imaging radiometer's lens.
7. Without moving imager, adjust E control until observed temperature matches value obtained in Step 5 above. The displayed E value is the Transmittance percentage for this window with the subject imaging radiometer. For greater accuracy, repeat above steps a minimum of three times and average results.

The above procedure is described in detail in the *Standard for Measuring and Compensating for Transmittance of an Attenuating Medium Using Infrared Imaging Radiometers*.

[More Information](#)

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## Attend IR/INFO 2020 and Get Discounted Training!

In celebration of IR/INFO's 31st anniversary, Infrasppection Institute are pleased to announce several special offers combining the world's most respected infrared training and certification program with the industry's original technical conference.



Several packages are available featuring discounts on Level I, II, and III Infrasppection Institute Certified Infrared Thermographer® training courses and TI Reporter™ software.

Special offers may not be combined with any other discount. Training course vouchers must be used by 12/31/20. Tuition vouchers are transferable to a third party for a \$500 administrative fee.

**IR/INFO**  
**CONFERENCE**

[More Information](#)

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## Make a Difference



[Become an Infrasppection Institute Master Thermographer®](#)

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[Ultrasound World](#)

May 12 - 14, 2020  
Clearwater Beach, FL

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## Links of Interest

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[CITA.ORG](#)

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